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TRANSIT PREFERENTIAL STREETS PROGRAM

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CITY PLANNING
SAN FRANCISCO, 1973

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SAN FRANCISCO DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

November 26, 1973

Members of the Board of Supervisors
235 City Hall
San Francisco, Ca 94102

Dear Supervisors:

Enclosed is the "Transit Preferential Streets Program," developed jointly by the Department of Public Works, Department of City Planning and the Municipal Railway in response to your Resolution No. 189-73. It was heard and accepted by the City Planning Commission on October 25, 1973. The Commission instructed me to forward it to the Board for consideration, and urged early implementation of the proposals contained in it.

The Transit Preferential Streets Program assigns priority to transit over other vehicular movement on important transit streets. The purpose of the program is to eliminate conflicts with other vehicular traffic in order to achieve schedule reliability and to reduce transit travel time -- that is, the time it takes a transit vehicle to go from the beginning to the end of its route. This travel time is one of the most important factors affecting transit patronage, and substantial reduction can generally be expected to increase the attractiveness of transit as a means of travel within the City.

This program affords the City a variety of suggestions to help implement the Transit First Policy adopted by the Board. We look forward to working with you to make San Francisco's transit system provide fast, reliable service to all its riders.

Sincerely,

Allan B Jacobs

Allan B. Jacobs
Director of Planning
by E. J. M.

3 1223 06467 3883

SAN FRANCISCO

CITY PLANNING COMMISSION

RESOLUTION NO. 7093

WHEREAS, The Board of Supervisors by Resolution No. 189-73 declared that Municipal Railway and other transit vehicles be given priority in the use of the street; and

WHEREAS, The Board in the same resolution requested that the City Planning Department, the Public Works Department, and the Municpal Railway prepare a transit preferential streets program within six months; and

WHEREAS, The Board requested that the City Planning Commission review the program and forward it to the Board with any modifications it deemed necessary; and

WHEREAS, The City Planning Commission did, on October 25, 1973, review the Transit Preferential Streets Program prepared by the three departments;

THEREFORE BE IT RESOLVED, That the City Planning Commission accepts this program and directs the Director of Planning to forward it to the Board of Supervisors for their information and action, and urges its early implementation.

I hereby certify that the foregoing Resolution was ADOPTED by the City Planning Commission at its regular meeting of October 25, 1973.

Marie Zeller
Acting Secretary

AYES: Commissioners Farrell, Fleishhacker, Newman, Porter, Ritchie, Rueda.

NOES: None

ABSENT: Commissioner Mellon

PASSED: October 25, 1973

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TRANSIT PREFERENTIAL STREETS PROGRAM - A Joint Report by
Public Works
Municipal Railway
City Planning

Introduction

In March of 1973, the Board of Supervisors passed Resolution #189-73 declaring that Municipal Railway vehicles and other transit vehicles be given priority over other vehicles on the streets, and asked the Department of City Planning, the Public Utilities Commission and the Department of Public Works to develop a system of transit preferential streets for San Francisco.

This resolution was based on a policy and map contained in the Plan for Transportation, adopted by the City Planning Commission as part of the City's Master Plan in April, 1972. This policy states: "Improve the speed of transit travel and service by giving priority to transit vehicles where conflicts with auto traffic occur, and by establishing a transit preferential streets system." It recognizes that transit speed is currently slower than auto speed due to passenger stops and street congestion, and calls for elimination of conflict between automobiles and transit. Priority for transit is to be achieved by the use of exclusive lanes, equipment of buses and trolleys with devices to trigger lights in their favor at intersections, restricting autos from streetcar and cable-car tracks, and eliminating automobile turning movements which conflict with transit vehicles, among other actions. The map, called the "Transit Preferential Streets Plan", indicated all those streets on which transit should, because of its importance in moving large numbers of people, have preference in the use of the street.

Since passage of the Board of Supervisors' resolution, the three departments have been developing a Transit Preferential Streets* Program. The object of the program is to provide reliable and efficient transit service by:

---

*A transit preferential street is defined as one which carries a high volume of transit person trips or has a potential to do so, and where interference by other vehicular traffic should be minimized--or eliminated--in order to improve transit travel time and reliability.

(1) Improving the overall transit time of transit vehicles operating on designated transit preferential streets; and

(2) Minimizing the conflicts between transit and other vehicles.

The methodology followed by the departments was to 1) analyze individual streets and corridors, identifying the conflicts existing on the streets; and 2) match the conflict problem with the tools available to alleviate that conflict. The means available to accomplish the objective of the program include, but are not limited to: creation of exclusive bus lanes, restriction of automobile left and right turns which conflict with transit, exclusive transit streets, synchronization of traffic signals to the speed of transit vehicles rather than automobiles, prohibition of on-street parking, limited access to streets by commercial vehicles, transit route changes, installation of wider and longer transit islands and zones, and designing of transit stops to accommodate passenger queues. Certain administrative and policy actions are also means to be considered, such as heavier enforcement of existing traffic regulations with emphasis on transit preferential streets, regular traffic signal inspection to insure correct functioning of signal timing cycles, and earlier enforcement of tow-away zones.

The number of streets identified as transit preferential in the Plan for Transportation are numerous, and the work involved in solving conflict problems on each street is legion. It was decided, therefore, to establish criteria for determining priority among transit streets, select the highest on the list and begin a systematic program of study which should continue until each street in the Plan has been studied and solutions proposed to any existing conflicts.* The criteria included: 1) where there are a large number of transit person trips within a corridor and on individual streets as compared to auto person trips; 2) where there are a large number of transit person trips occurring during the peak and off-peak hours; 3) where there is a large transit travel demand between two or more densely developed areas; and 4) where there are significant conflicts between transit and other vehicular travel.

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*While this study is addressed to designated transit preferential streets, there are some 67 Muni lines traveling the City's streets. Priority in street use and solution of transit problems for the remaining Muni lines must be a continuing concern of the City so that the entire transit system can efficiently and comfortably serve every rider.

After preliminary analysis using these criteria, the following streets were selected for priority study: Post/Sutter, O'Farrell/Geary, Mission, Stockton, Third/Kearny, Fourth, Divisadero/Fillmore, and Polk. For instance, Post and Sutter Streets were selected because they carry the #1-California, #2-Clement, #3-Jackson, and #45 California with more than 15,000,000 passengers a year. These routes serve a large transit travel demand between the northwest section of the city and the downtown area, not only during peak hours but during off-peak hours as well. Mission Street was selected because it carries the #9-Richland, #11-Hoffman, #12-Mission/Ocean, #14-Mission (regular and express), in addition to the Mission Shoppers' Shuttle, and connects not only the Mission district to downtown but to crosstown lines to the Marina, Fisherman's Wharf and the Richmond. Serious conflicts and delays on Mission occur in the heavily commercial area between 16th and 24th Streets, and in that segment from Duboce to the Embarcadero where there is intense commercial activity and intersections serving not only Mission Street but major traffic arteries (such as Third and First).

Certain other transit preferential streets were not included in the study at this time for various reasons. Market Street, for instance, is still under construction, with its configuration changing from day to day. Its design is being coordinated by another committee, the Transit Task Force. Judah Street is being studied by the Transit Improvement Program of the Municipal Railway. The design of one segment (from Ninth to 19th Streets), including an exclusive right-of-way for the N-Judah streetcar, has already been approved by the Board of Supervisors.

This paper presents to the City Planning Commission and the Board of Supervisors for their consideration: 1) a series of street improvements and treatments on the selected transit preferential streets; 2) proposed administrative or policy actions that could be taken to alleviate conflicts between transit and other vehicles; and 3) proposed enforcement actions to either make existing traffic regulations which affect transit movement work better, or in some cases strengthen them.

It should be noted that the Supervisors' resolution requesting the development of a Transit Preferential Streets Program is not an isolated "transit-first" action. This resolution is only one step in the growing awareness of the problems caused by increased automobile use and of actions being taken to alleviate the impact of the automobile and reduce its use. In 1970, the Public Utilities Commission approved a $44 million Transit Improvement Program for the Municipal Railway, which involved new transit equipment, new rails, new servicing and storage facilities among other things. Combined with this is a program to update the

electrical system which powers Muni's trolley cars and coaches. The Golden Gate Bridge District has expanded its services to include provision of transit, recognizing that additional commuters from Marin to San Francisco could only be accommodated by transit. The Environmental Quality Act of 1969 mandated the reduction of auto emissions, and this year proposed a plan involving a major reduction in vehicle miles traveled, placing heavy reliance on public transit to get people where they want to go. The Federal-Aid Highway Act of 1973 has for the first time provided that highway trust funds can be used for the purchase of buses and rail transit vehicles. The State legislature has approved a bill for the June 1974 ballot authorizing the use of part of the State's gasoline tax for transit construction.

In short, then, the establishment of a system of transit preferential streets and a specific program of implementation actions is just one part of a range of actions needed to make transit a viable and attractive way for San Franciscans to move about their city.

Street Treatments and Improvements

Nashville, Tennessee, established an exclusive curb lane for bus loading, plus exclusive curb lanes for peak-hour buses in 1956. Harrisburg, Pennsylvania, instituted a reverse curb-side bus lane on a one-way street in the mid-1950's. Chicago installed an exclusive center bus lane along a major east-west arterial in 1956. In 1958, Dallas, Brimingham and Baltimore all inaugurated exclusive bus lanes on major downtown business streets. By 1963, Atlanta, Georgia, had four exclusive transit lanes in the downtown Atlanta area. Other cities, such as Newark, evolved a dual bus lane, while Peoria, Illinois, Rochester, New York, and Cleveland, Ohio, have instituted part-time exclusive bus lanes.

More recently, in Minneapolis an eight-block section of a major street in the prime retail district was totally reconstructed and radically redesigned to be shared primarily by pedestrians and transit in order to improve access and encourage mass transportation usage. New York City has proposed a pedestrian mall on mid-town Madison Avenue with access only for transit, emergency vehicles, and truck deliveries. In Miami, Florida, a project has been started which will provide exclusive bus lanes on one of its city streets and on an interstate freeway. A private bus right-of-way was instituted on the Shirley Expressway into Washington, D.C., and in the city itself priority curb lanes were set up to speed distribution of passengers at bus stop destinations. It has been recommended that 32 more bus lanes should be established in the area by 1975 as one way to meet air quality standards. The purpose of all of these actions was to increase the speed of transit and improve its reliability by removing the conflicts between transit and other vehicular traffic using the street.

The improvements or treatments listed here are suggested for the same reasons. Each was arrived at after study of the conflicts on the streets, and range from exclusive bus lanes to signal timing changes. Major emphasis was placed on finding low cost, quickly done solutions to be carried out on the existing street system. Although some route changes are proposed, they are relatively minor, and are made to help transit avoid problem intersections or congested areas. Any major route changes should be made only in the context of a citywide origin-destination study carried out by the Municipal Railway.

Each suggested solution is listed with pros and cons, costs, time for implementation, and department responsible for the work. In some cases, where there is a difference between departments as to the solution (or element of a solution) which would work best for the conflict, the position of each department is noted.

LOCATOR MAP FOR TRANSIT PREFERENTIAL STREET PROPOSALS

SCALE: 3/4" = 2400 FT.

TRANSIT PREFERENTIAL STREETS 1

A JOINT REPORT BY
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MUNICIPAL RAILWAY
CITY PLANNING

SAN FRANCISCO, CALIF.
1973

POST AND SUTTER STREETS	Muni Lines:	#1-California, #2-Clement, #3-Jackson, and #45-Van Ness/Sutter; electric and diesel equipment.
	No. of daily transit round-trips:	#1, #2 & #3 - 474 #45 - 110
	Bus headway:	P.M. peak (4-6 p.m.) - 48 seconds Midday - 1-3/4 minutes

Existing Conflicts and Problems

- Existing transit lanes (right-hand curb lane for buses and right-hand turns only 7-9 a.m. for Post and 4-6 p.m. for Sutter) present conflicts between transit and right-hand turning vehicles. They are often blocked during the peak hours, particularly in the evening, with cars not yet moved, taxis, tow trucks moving violating vehicles, and vehicles stopping to pick up passengers. This type of lane is difficult to enforce and when blocked forces Muni into regular traffic lanes. More importantly, it does not serve the heavy midday volume of these lines, which must mingle with traffic and loading-unloading vehicles using the lanes and curb.

- The graphics indicating the bus lane are not easily understood.

Possible Solutions

- Four solutions were considered: 1) exclusive bus lanes opposing traffic; 2) a reverse exclusive bus lane on Montgomery between Post and Sutter to reroute the #1, #2, #3 and #45; 3) an 18-foot curb bus lane in direction of flow of traffic incorporating parking/loading and right turns; and 4) rerouting of the #1, #2, #3 and #45 to Post-Market-Sutter. The alternative involving reverse bus lanes on Post and Sutter was eliminated because it would mean complete removal of all parking all day on one side of the street.

- The alternative involving a reverse lane on Montgomery was eliminated because of numerous problems in bus movement into and out of the lane, affecting several intersections (due to the narrow width of Montgomery), among other technical problems. The remaining alternatives are discussed below.

Proposal 1

Eighteen-foot bus lane in direction of flow of traffic on both streets (see Sketches 2A, 2A-1 & 2B). This lane would be on the right-hand side of the street, allowing curbside parking and loading during off-peak hours, and giving Muni semi-exclusive use of the lane next to the curb lane all day. At intersections where right-hand turns must be accommodated, the curb lane would be forced to turn right and would be the only place from which a right-hand turn could be made.

Since the pavement width on Post and Sutter varies, two different lane configurations are necessary. The location of these configurations is shown on Sketch 2. Sketch 2A indicates the lane configuration for Post and

Pros

Allows current curbside use to continue, and gives transit a semi-exclusive portion of the street all day in which to operate with minimum conflict with other vehicular movement. This is particularly significant for midday transit movement. It can be operated on either a 24-hour or a 7 a.m. to 6 p.m. basis.

Gives transit semi-exclusive use of the next to the right-hand turn lane, eliminating the need for transit to wait for vehicles turning right.

Cons

This does not give Muni an entirely exclusive lane, and will have to accommodate some weaving movements as traffic moves into and out of the curb lane and over to the traffic lanes. Enforcement measures will be necessary to insure that through traffic does not use the bus lane for through travel. This alternative would mean removal of one lane of moving traffic on the street if no parking regulations are changed.

This proposal will necessitate the removal of one lane of traffic from Gough to Market.

POST/SUTTER AND O'FARRELL/GEARY

SCALE: 3/4" = 2400 FT.

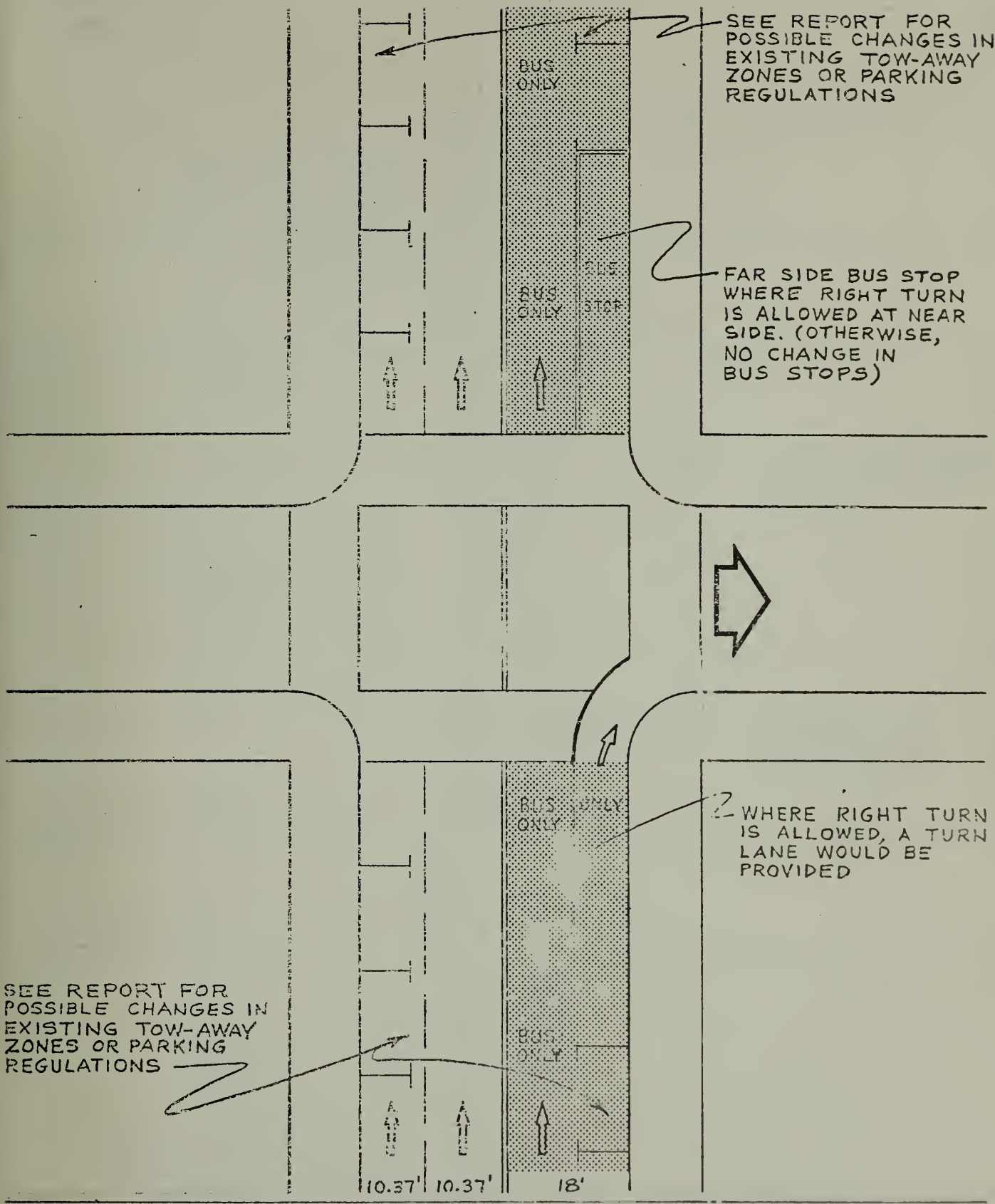
—— BUS & TRAFFIC LANE CONFIGURATION FOR 38' STREET WIDTH (FOR DETAIL SEE SKETCH 2A)

BUS & TRAFFIC LANE CONFIGURATION FOR 44' OR 48' STREET WIDTH (FOR DETAIL SEE SKETCH 2B)

TRANSIT PREFERENTIAL STREETS 2

A JOINT REPORT BY PUBLIC WORKS MUNICIPAL RAILWAY CITY PLANNING

SAN FRANCISCO, CALIF. 1973


SEE REPORT FOR POSSIBLE CHANGES IN EXISTING TOW-AWAY ZONES OR PARKING REGULATIONS
BUS ONLY
BUS ONLY
BUS STOP
FAR SIDE BUS STOP WHERE RIGHT TURN IS ALLOWED AT NEAR SIDE. (OTHERWISE, NO CHANGE IN BUS STOPS)
BUS ONLY
BUS ONLY
WHERE RIGHT TURN IS ALLOWED, A TURN LANE WOULD BE PROVIDED
SEE REPORT FOR POSSIBLE CHANGES IN EXISTING TOW-AWAY ZONES OR PARKING REGULATIONS
BUS ONLY
10.37'
10.37'
18'

POST/ SUTTER — TYPICAL OF 18' BUS LANE WHERE PAVEMENT IS 38.75' WIDE

(FROM GOUGH TO MARKET)

NOT TO SCALE

- PAVEMENT = 38.75'
  2 LANES AT 10.37'
  1 BUS LANE 18' WIDE
- SEE SKETCH 2B FOR NEAR SIDE BUS STOP

TRANSIT PREFERENTIAL STREETS

2A

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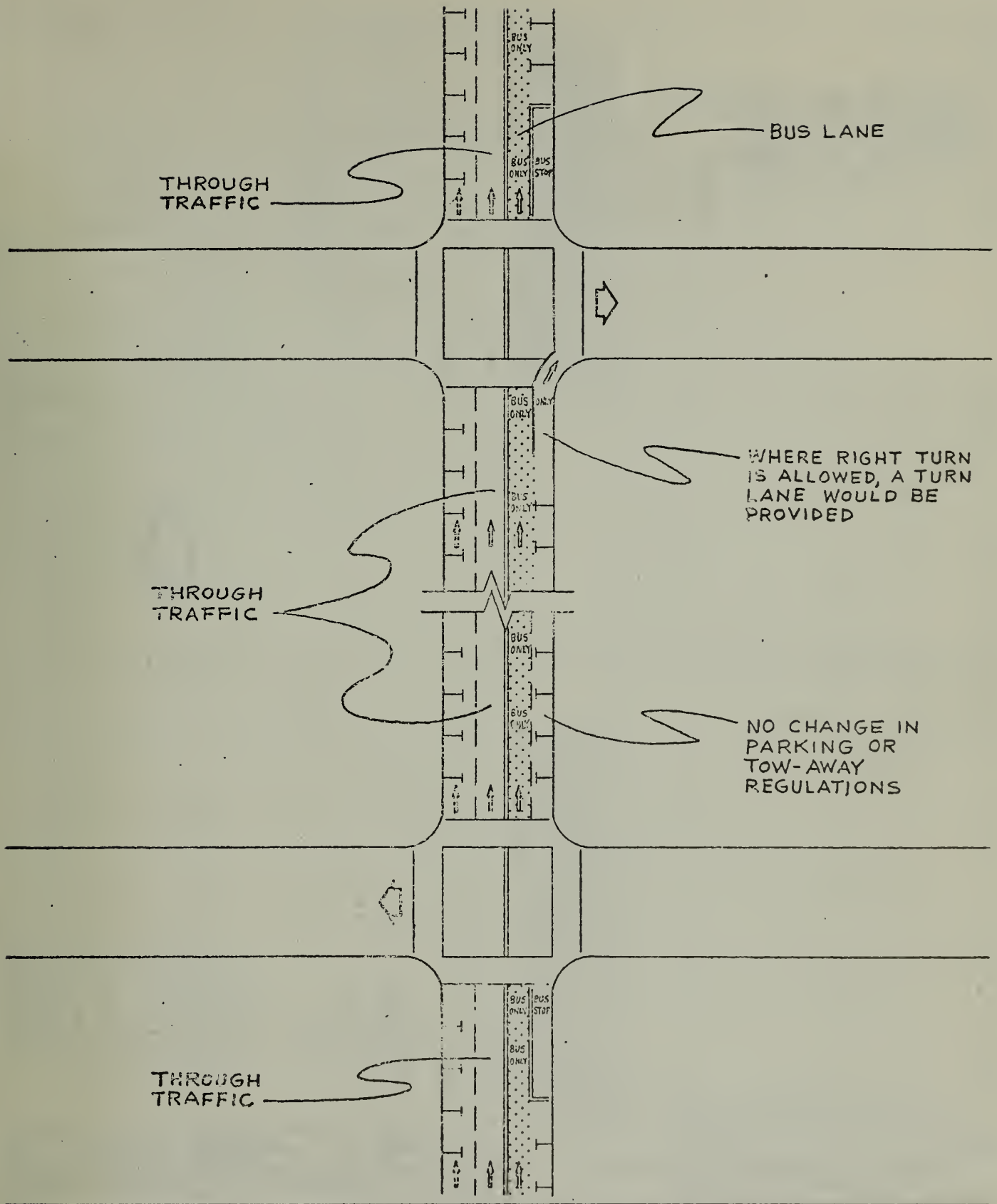
MUNICIPAL RAILWAY
CITY PLANNING

SAN FRANCISCO, CALIF.
1973



POST/ SUTTER – TYPICAL OF BUS LANE WHERE PAVEMENT IS 38.75' WIDE AS SHOWN IN SKETCH 2.A

(FROM GOUGH TO MARKET)

NOT TO SCALE

@ SKETCH ADDED AT REQUEST OF CITY PLANNING COMMISSION

TRANSIT PREFERENTIAL STREETS 2A-1

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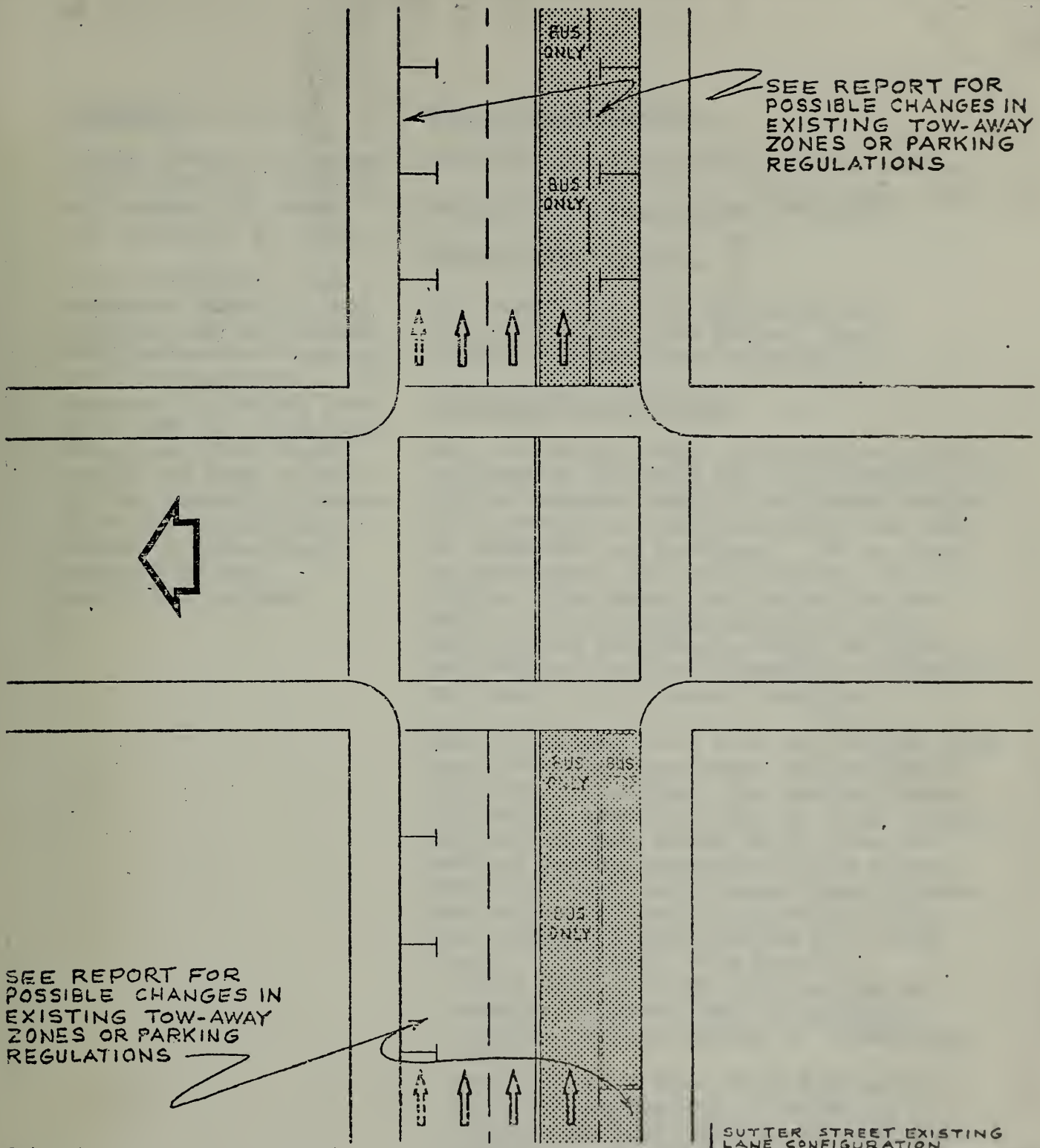
SAN FRANCISCO, CALIF. 1973


BUS ONLY
BUS ONLY
SEE REPORT FOR POSSIBLE CHANGES IN EXISTING TOW-AWAY ZONES OR PARKING REGULATIONS
BUS ONLY
BUS ONLY
SEE REPORT FOR POSSIBLE CHANGES IN EXISTING TOW-AWAY ZONES OR PARKING REGULATIONS

TYPICAL OF SUTTER, GEARY AND O'FARRELL – PROPOSED LANE CONFIGURATIONS	8.9'	9'	9'	18'
TYPICAL OF POST ST. – PROPOSED LANE CONFIGURATION	10.3'	10.3'	10.3'	18'

SUTTER STREET EXISTING LANE CONFIGURATION			
11.45'	11'	11'	11.45'*
POST STREET EXISTING LANE CONFIGURATION			
18' INCL. PKING	10'	10'	10.9'

PAVEMENT WIDTH – GOUGH TO TAYLOR:
ON POST = 48.9'
ON SUTTER, O'FARRELL, GEARY = @ 44.9'

NOT TO SCALE

* P.M. – BUSES AND RIGHT TURNS ONLY

TRANSIT PREFERENTIAL STREETS 2B

A JOINT REPORT BY
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MUNICIPAL RAILWAY
CITY PLANNING

SAN FRANCISCO, CALIF.
1973

Proposal 1 (cont.)

Sutter where the pavement width is 38 feet, and Sketch 2B where the width is 44 feet.

It is essential that pavement striping and symbols for all street treatments be clear and easily understood. A program to design pavement and sign standard logos for bus lanes should be made a part of the transit information and industrial design problem being studied by the Municipal Railway.

Costs Would Involve:

Striping and stenciling of bus lanes.

Restriping of remainder of lanes.

Appropriate signing.

The costs would be approximately $8,100 for Post and Sutter, and $4,200 for Geary and O'Farrell.*

Departmental Opinions

City Planning: This alternative appears to present the best way to minimize conflicts between transit and other vehicular movement, and still meet the needs of commerce and business. It is easy to implement, but will require additional enforcement by the Police and Muni. It is recommended that this alternative be given a trial on Post and Sutter, and be extended to O'Farrell and Geary if it proves workable.

For the segments of Post and Sutter that have 38' width pavement, a possible solution to maintain two moving lanes of traffic from 1 to 6 p.m. when traffic is the heaviest would be to make the parking on the bus side of the street commercial all day, extend the tow-away hour to 1 p.m. on the opposite side, with special truck loading only from 9 a.m. to 1 p.m. This means:

- South side of Post from Taylor to Market: Convert the 10 existing regular parking meters to commercial zones.
- North side of Post from Taylor to Market: Remove the 17 existing regular parking meters, convert all parking to Special Truck Loading (no station wagons) from 9 a.m. to 1 p.m., with tow-away from 1 p.m. to 6 p.m.
- North side of Sutter from Stockton to Montgomery: Convert the existing 3 regular meters to commercial zones.

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*Costs supplied by DPW.

Proposal 1 (cont.)

Departmental Opinions (cont.)

- South side of Sutter from Stockton to Montgomery: Remove the existing 4 regular meters, convert all parking to Special Truck Loading from 9 a.m. to 1 p.m., with tow-away from 1 p.m. to 6 p.m.

Municipal Railway: This proposal should be tried. Post and Sutter appear to be the appropriate streets for the experiment due to their heavy transit load.

Public Works: Post Street carries 600 to 700 vehicles per hour and Sutter Street 500 to 700 per hour. The absolute maximum carrying capacity per lane in the downtown area for these streets is about 400 per hour. Sufficient lanes must be available or traffic congestion will become severe with either autos violating the bus lanes or tie-ups extending through intersections or probably both. Hence, it would be unworkable in the areas where pavement width is 38'-9".

This alternative is feasible for Post Street west of Taylor where the width is 48'-9". It would be possible on Sutter west of Grant where the street is 44 feet wide but would require a 17-foot bus only lane and 9'-3" auto lanes, which is extremely tight.

The same comments would hold good for the Geary and O'Farrell proposed treatment.

It is DPW's feeling that a detailed study should be performed before any of the street treatments or improvements proposed in this study are put into effect, and a similar study afterwards to determine the effect of these measures should be undertaken. It is only in this way that both the problem can actually be determined and the effect of the solution measured.

Proposal 2

Reroute the #1, #2, #3, and #45 Muni lines from the present Post, Kearny, Bush, Sansome, Market, Sutter alignment to a Post, Market, Sutter alignment (see Sketch 2C). This can be best accomplished by designing the sidewalk detail at Post and Market as shown in the original Market Street Plan, which called for a transit lane entering Market. The left turn for Muni from Market into Sutter can also be facilitated by revising the sidewalk/curb detail at that corner.

The rerouting of the #1, #2, and #3 should be done after Muni is operating underground on Market. The #45 evening-weekend routing could be changed to this alignment now. Until Muni goes underground on Market, the #45 daytime-weekday routing should be changed as indicated on Sketch 2D to eliminate the conflict corner of Bush and Kearny.

Pros

Would eliminate circuitous routing of all these routes, and relieve the severe conflicts between buses and other vehicular traffic on Kearny and Bush Streets. It would mean a time savings of 3-4 minutes of running time per bus.

Would extend present routing to Market Street on the inbound run, providing a direct connection to the BART and Muni station at Montgomery and Market.

Cons

Would require one block of wires on Market Street.

Departmental Opinions

City Planning and Muni: These proposals should be implemented. The left turn cut through from Market to Sutter could also accommodate the northbound #42 by allowing it direct access to Sansome.

Public Works: This would require trolley wires on Market Street, and tend to open the door to trolley wires throughout Market Street. In view of the large sum of money to beautify Market Street and the definitive decision to remove all trolley wires (except crossings) from Market, DPW would oppose this.

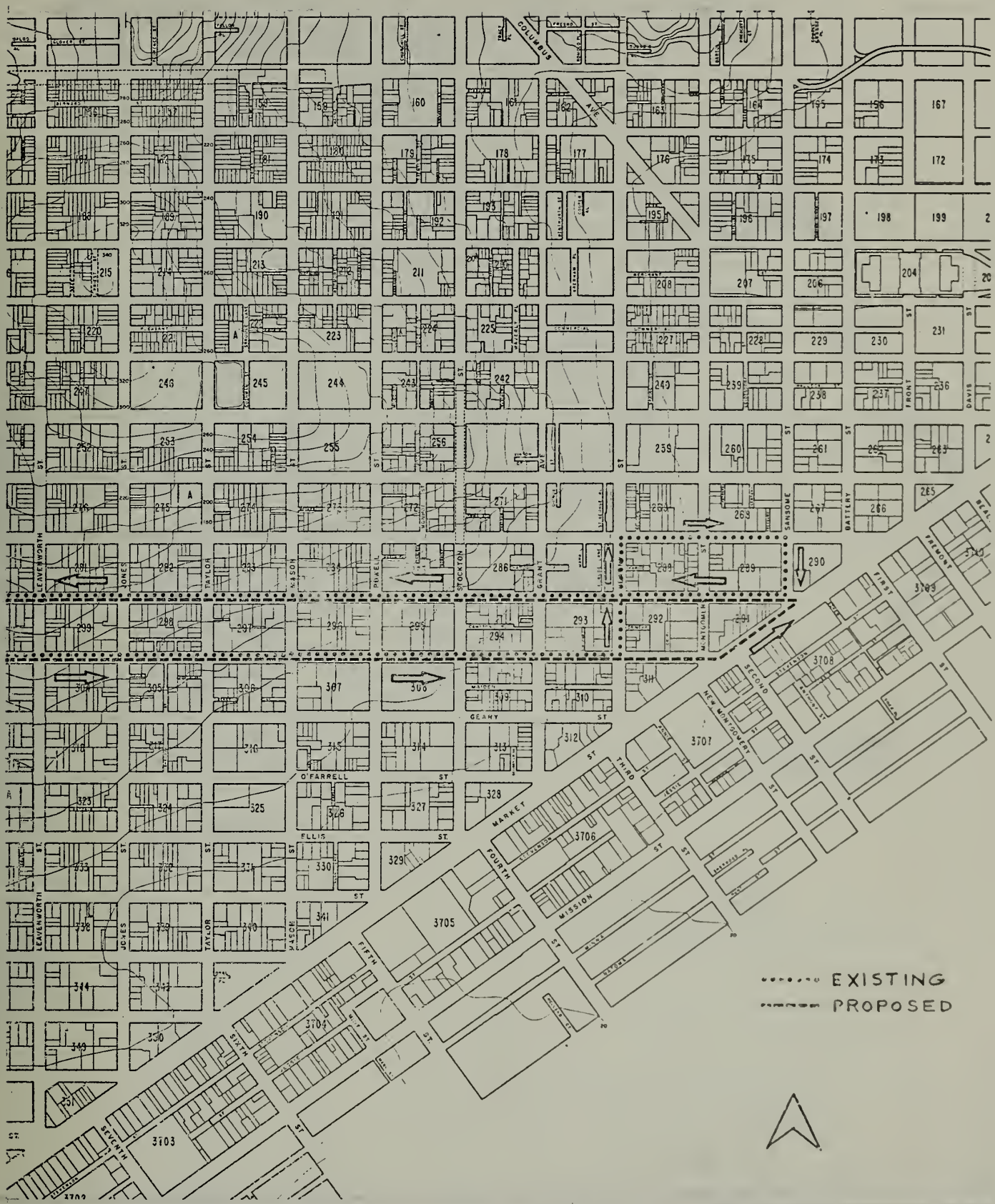
However, DPW agrees with the concept of rerouting and, if buses were used, would wholeheartedly support the alternative.

Costs Would Involve:

Provision of transit wires on Post between Kearny and Market, with crossover lines onto Market and onto Sutter.

Reconstruction of sidewalk at Post and Market to allow bus lane.

Signals and appropriate signing.



POST/SUTTER – REROUTE OF NOS. 1, 2, 3 & 45 EVENING-WEEKEND MUNI LINES

SCALE: 1/2" = 400 FT.

* WITH TRANSIT LANE THROUGH POST ST. PLAZA & SANSOME ST. SIDEWALK FOR OPTIMUM PERFORMANCE

TRANSIT PREFERENTIAL STREETS 2C

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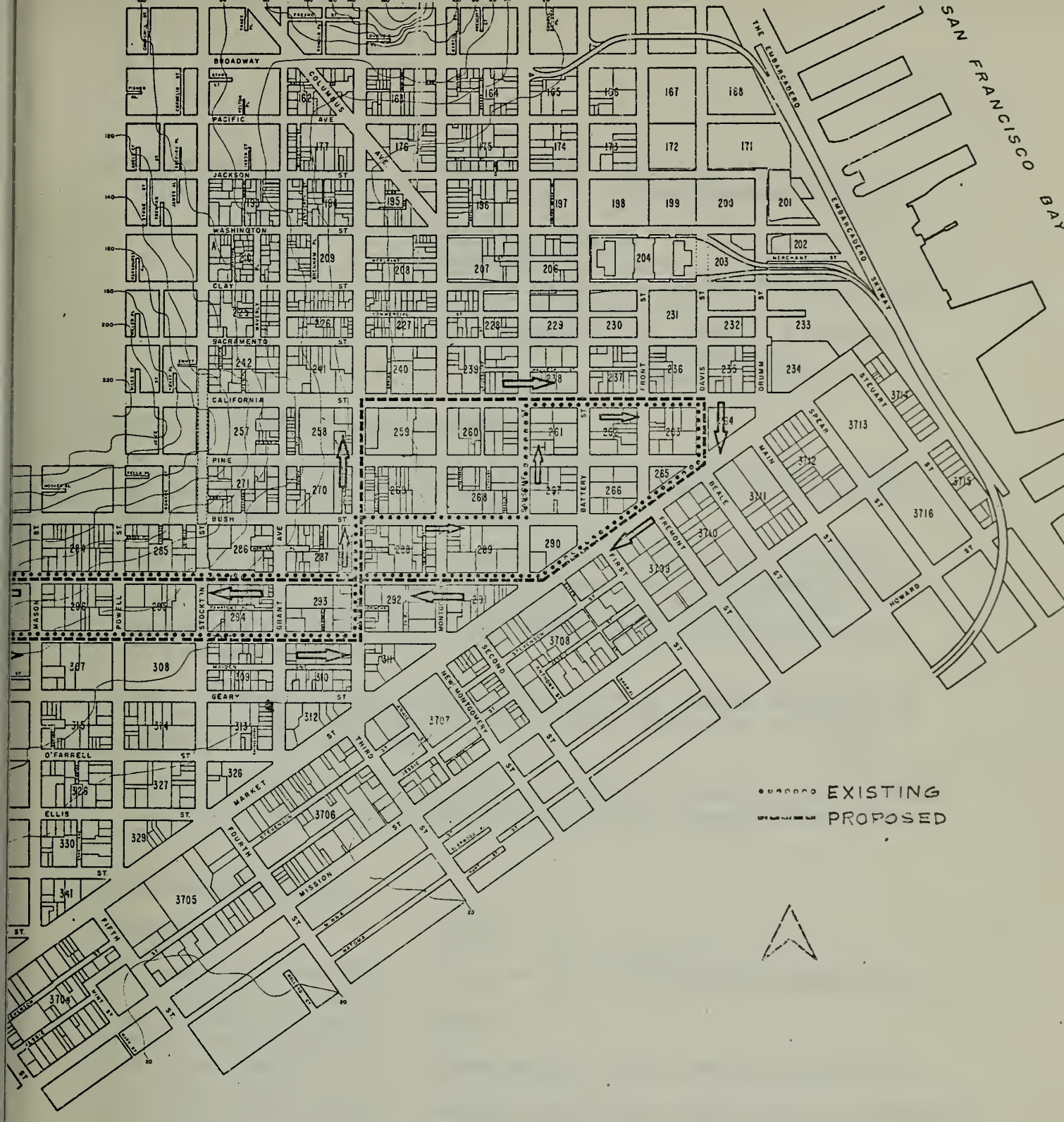

POST/SUTTER – REROUTE OF NO. 45 WEEKDAY – DAYTIME MUNI LINE

SCALE: ½" = 400 FT.

TRANSIT PREFERENTIAL STREETS

2D

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THIRD/KEARNY STREETS

Muni Lines: #15, #30, #42, #84-Shoppers' Shuttle

No. of daily transit round-trips: 391 (plus 9 shuttle runs)

Bus headway: P.M. peak - 1 minute, 20 seconds
Midday - 3 minutes

Existing Conflicts and Problems

- Very heavy truck and automobile traffic, this being a major artery serving South of Market and the financial district from the Bay Bridge and Highway 80.

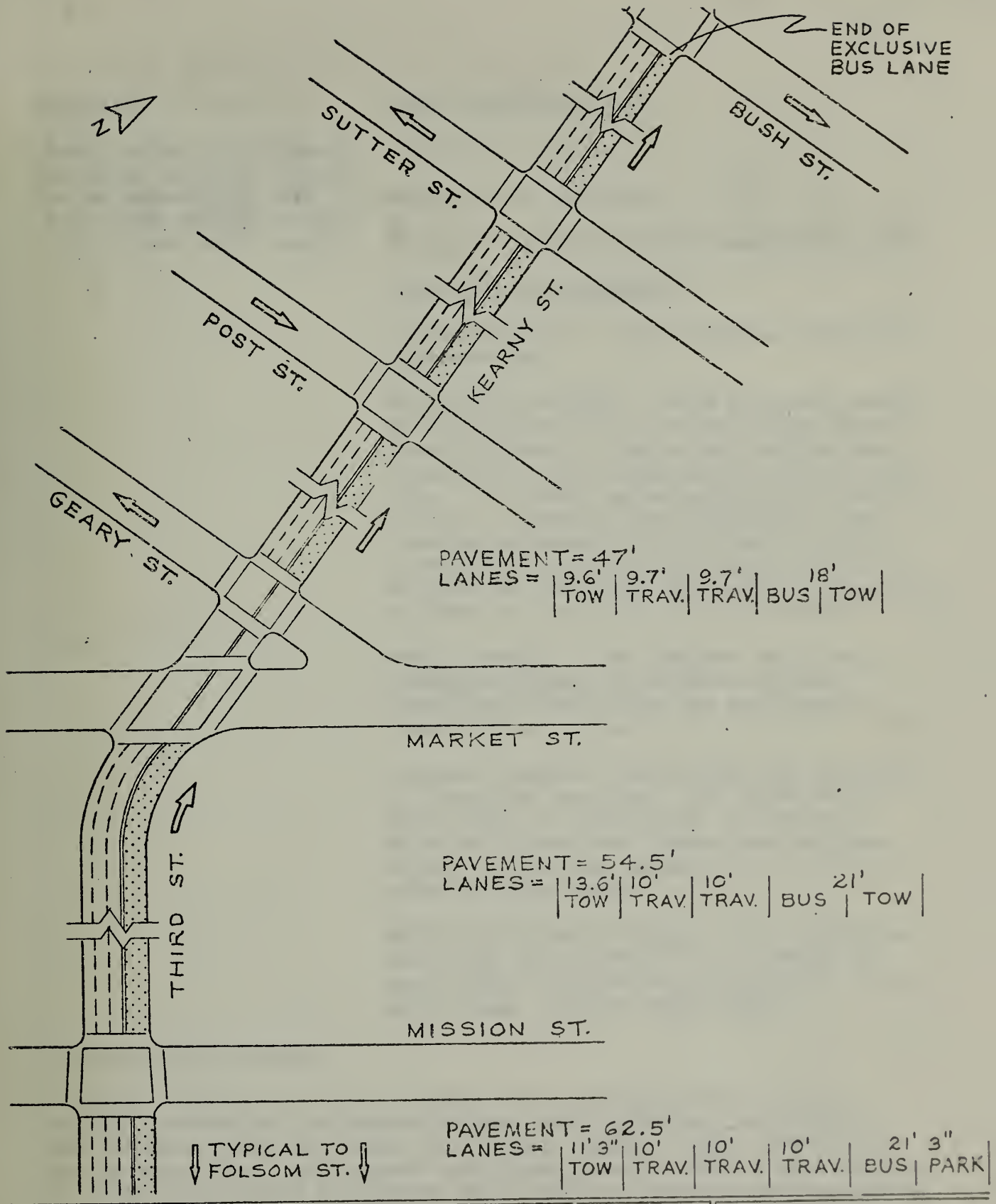
- Conflict at Mission and Third Street intersection causes back-ups between Mission and Folsom, and this combined with heavy turning movements from Third onto Mission cause considerable delays for northbound buses on Third between Folsom and Market.

- Large number of buses using this artery causes stack-up of equipment between Mission and Market, and also on Kearny between Market and Bush.

- Conflict between pedestrians, turning movements, and cross traffic at Third and Market intersection cause delays for Muni.

Possible Solutions

Proposal 1	Pros
Eighteen-foot bus lane in direction of flow of traffic on Third and Kearny from Howard to Bush (see Sketch 3A). This lane would be on the right-hand side of the street, allowing curbside parking and loading during off-peak hours, and giving Muni semi-exclusive use of the lane next to the curb lane all day. At Mission, Market and	Same as for Post-Sutter alternative. Cons Same as for Post-Sutter alternative. Unless right-hand turns were eliminated at Mission and Market, conflicts between transit vehicles using the bus stops and right-hand turning traffic would still remain.


END OF EXCLUSIVE BUS LANE
N
SUTTER ST.
BUSH ST.
POST ST.
KEARNY ST.
GEARY ST.
PAVEMENT = 47'
LANES = 9.6' TOW | 9.7' TRAV. | 9.7' TRAV. | BUS 18' | TOW
MARKET ST.
THIRD ST.
PAVEMENT = 54.5'
LANES = 13.6' TOW | 10' TRAV. | 10' TRAV. | BUS 21' | TOW
MISSION ST.
TYPICAL TO FOLSOM ST.
PAVEMENT = 62.5'
LANES = 11' 3" TOW | 10' TRAV. | 10' TRAV. | 10' TRAV. | BUS 21' 3" | PARK

THIRD/ KEARNY – 18' OR 21' BUS LANE, INCORPORATING EXISTING PARKING/LOADING & RIGHT TURNS IN CURB LANE

(FROM FOLSOM TO BUSH)

NOT TO SCALE

TRANSIT PREFERENTIAL STREETS 3A

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CITY PLANNING

SAN FRANCISCO, CALIF.
1973

Proposal 1 (cont.)

Bush, where right-hand turning movements must be accommodated, the curb lane would be for right-hand turns only.

Costs Would Involve:

Striping of lanes.

Appropriate signing.

The cost would be approximately $2,400.

Departmental Opinions

City Planning: This proposal should be implemented.

Municipal Railway: This proposal could be implemented, but unless right-hand turns at Post, Mission and Market are eliminated, the lane will not be exclusive. A better alternative would be to isolate a center lane for Muni, with loading islands in the street. North of Market the exclusive lane would be shifted to the curb lane with no parking allowed on the east side of Kearny.

Public Works: DPW concurs with the treatment south of Mission Street provided right turns are permitted from the bus lanes.

Between Mission and Market the concept is feasible provided "NO STOPPING AT ANY TIME" is instituted on the west side as three auto lanes are required to avoid serious congestion even outside of peak hours.

North of Market Street, it is feasible provided "NO STOPPING" is changed to west side, and the bus lane is 17 feet with three 10-foot auto lanes.

Non-operative Actions

Actions that can be taken without the proposed alternative include extending the far-side bus stop on Market at Third so that traffic does not stack up behind loading buses and block the intersection, as happens now, and changing the signal timing at Market and Third to insure that traffic travling eastbound on Market does not get caught in this particularly wide intersection, blocking the Third and Market and also the Market and Kearny intersections. Heavier enforcement measures at the intersections of Third at Market and at Mission, and at Kearny and Bush, are extremely important to insure that traffic regulations are obeyed and that these intersections remain clear at all times. The problem of enforcement is discussed more extensively further on in this report.

FOURTH STREET (from Market to Townsend)

Muni Lines: #30-Stockton (serving S.P. Depot), #30-Stockton Express, #33-Ashbury. When S.P. station is moved, the Muni will be rerouting the #15 and #42 southbound from Howard-Second-Brannan-Third to Howard-Fourth.

No. of daily transit round-trips: Current - 483
Future -- 783

Bus headway: P.M. peak, current - 58 seconds; future - 33 seconds
Midday, current - 2 minutes, 6 seconds; future - 1 minute, 6 seconds

Existing Conflicts and Problems

- Major route to Bayshore Freeway from downtown.

- Conflicts between buses and right-hand turns onto Fourth Street on-ramp.

Possible Solutions

Proposal 1

Exclusive bus lane in third lane from the right-hand curb, designed to allow a weaving area for vehicles desiring to move from one side of the street to the other (see Sketch 4A). Passenger loading platforms would be located in the street. This design would allow two lanes of traffic to

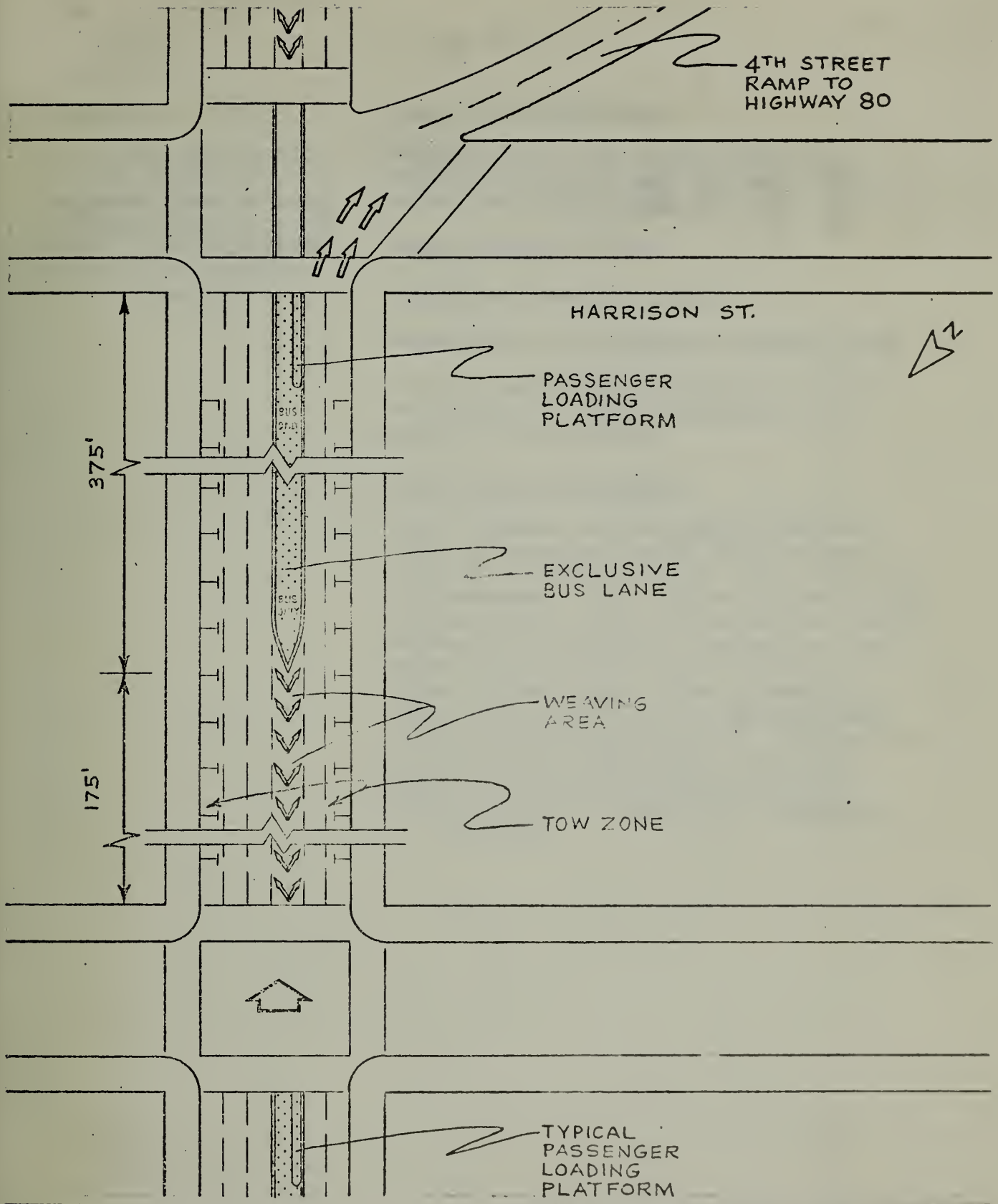
Pros

Buses would have an exclusive lane from Market to the S.P. Depot with the exception of weaving sections.

Bayshore on-ramp traffic would not be impeded, and in turn would not impede transit.

Cons

Enforcement measures would be necessary to insure that traffic does not use the bus lane.



FOURTH STREET – TYPICAL OF CENTER BUS LANE

(MARKET TO TOWNSEND)

NOT TO SCALE

- PAVEMENT = 62.5'
  - 3 – 9.9' MOVING LANES
  - 2 – 9.9' PARKING/ TOW LANES
  - 1 – 13' CENTER BUS LANE

TRANSIT PREFERENTIAL STREETS

4A

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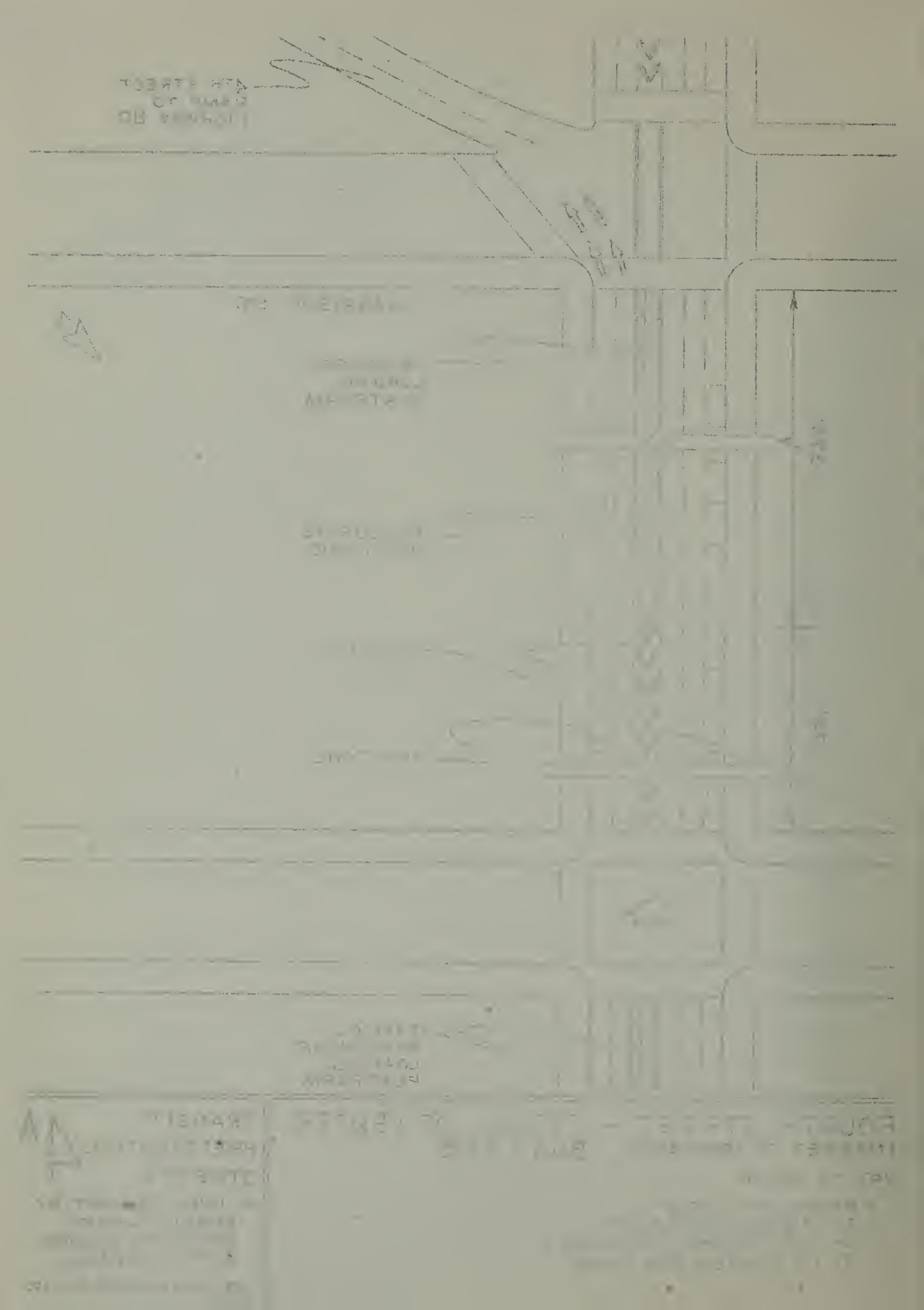


Proposal 1 (cont.)

turn onto the Fourth Street Bayshore entrance ramp without impeding transit, and would permit curbside parking and loading to be retained.

Costs Would Involve:

Striping bus lane and/or physical barriers such as duck bumps to keep autos out of bus lane.

Appropriate signing.

Passenger loading islands.

Restriping of remaining traffic lanes.

Cost is estimated at $2,000 a block, but could be higher depending on specific conditions.

Departmental Opinions

City Planning and Municipal Railway: This alternative would improve Muni service on Fourth Street and should be implemented. This street is one of the few streets in the city with the width necessary to permit a center bus lane, which is one of the most effective types of bus lanes. DPW agreed that this street would be an appropriate place to try this approach, although it is not believed that a problem exists north of Folsom or south of Harrison, and therefore no treatment is required.

MISSION STREET-
DUBOCE STREET TO
THE EMBARCADERO

Muni Lines: #9-Richland, #11-Hoffman, #12-Mission-Ocean, #14-Mission, #14-Guerrero Limited, #14-Mission Express, #26-Valencia

No. of daily transit round-trips: 735

Bus headway: P.M. peak - 43 seconds
Midday - 1 minute, 6 seconds

Existing Conflicts and Problems

- Heavy vehicular traffic entire length of street, with major conflict points at First and Mission and Third and Mission. Narrow (52 feet curb to curb) street, with considerable commercial usage.

Possible Solutions

Proposal 1

Reduce number of vehicles using Mission as a through street and limit use to local traffic block by block. Through traffic eastbound should be routed onto Folsom at Duboce and 14th Streets by means of better signing to the freeways and to Folsom. Westbound through traffic from the Embarcadero should be routed to Howard by means of better signing, and by limiting right-hand turns from the Embarcadero onto Mission. Positive action should be taken at 11th, 5th, and 2nd to divert all eastbound traffic onto Howard and

Pros

Would force Mission in this segment to work as a local street only, fully utilizing Folsom and Howard as the movers for through traffic. Reduction of traffic on Mission should enable transit to move more reliably.

Cons

May create circular traffic patterns.

Removal of some on-street parking on south side of the street near intersections of 11th, 5th, and 2nd to allow room for exclusive bus lane (see Sketch 5A).

Costs Would Involve:

Striping of lanes for diversion of traffic.

Appropriate signing.

Proposal 1 (cont.)

Folsom by making all traffic except Muni, jitneys and taxis turn right (see Sketch 5A). This would create three local traffic zones: 11th to 5th, 5th to 2nd, and 2nd to the Embarcadero. At the intersections of 11th, 5th, and 2nd, transit, jitneys, and taxis would have the use of an exclusive lane in order to cross the intersection, and passenger loading platforms would be provided in the street (see Sketch 5B).

In order to improve the access and use of Howard and Folsom as the one-way through traffic couplet south of Market, Howard should be only one lane eastbound between 12th and Duboce, with three lanes westbound; it should be one-way westbound from 12th to the Embarcadero. Folsom should be made one-way eastbound all the way from 14th or Duboce to the Embarcadero (it is now two-way between Duboce and 11th).

Departmental Opinions

City Planning: This alternative should be implemented.

Municipal Railway: Treatment of Mission Street in this manner would have a very significant positive effect on Muni operations. This proposal should be implemented.

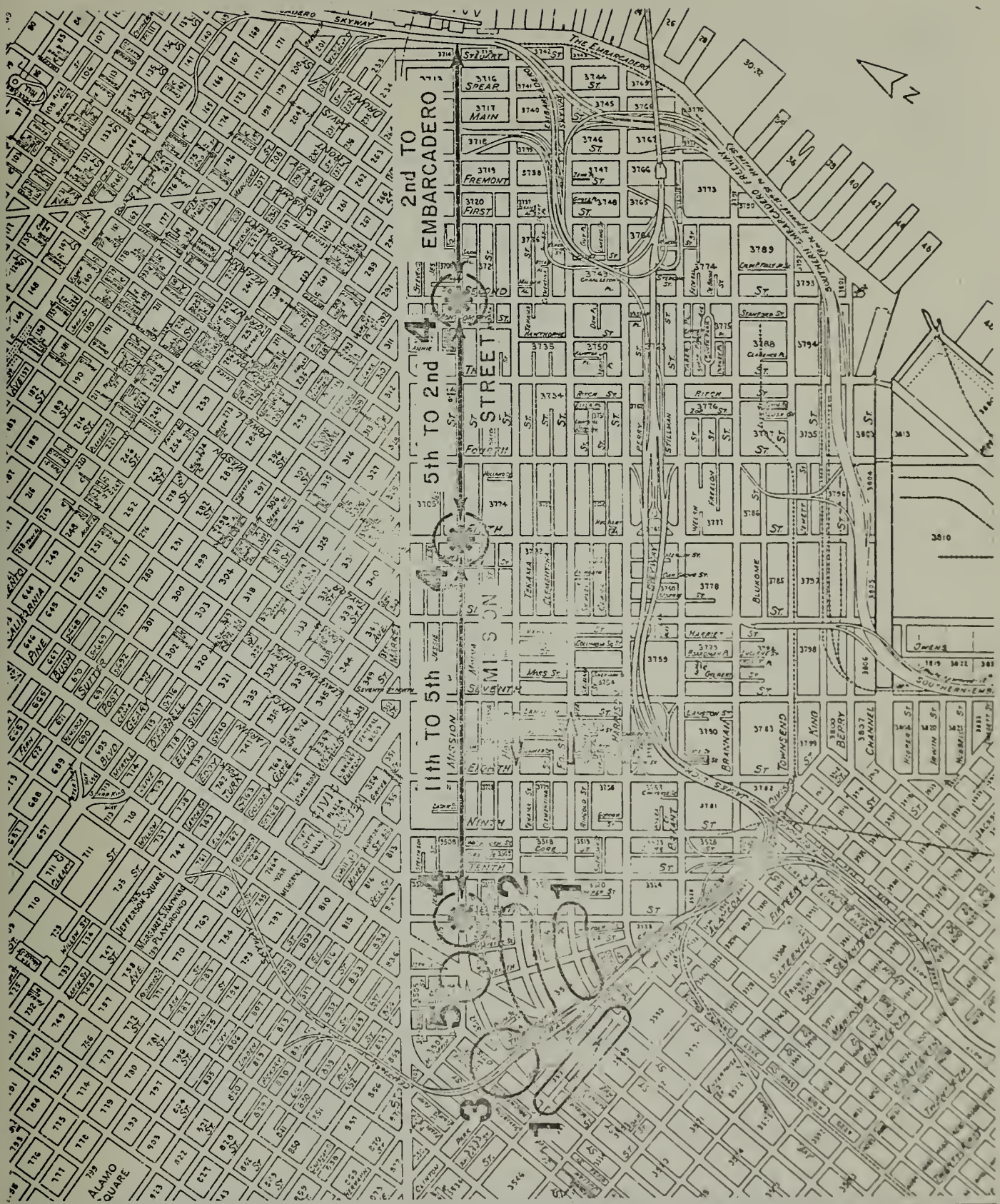
Public Works: The concept is good. Further study is necessary on the effect on traffic circulation and the method of diversion.

Proposal 2

In conjunction with diversion of eastbound through traffic from Mission Street, create an exclusive westbound transit lane from Beale to Duboce (see Sketch 5C). This would require passenger islands in the street, removal

Pros

Affords Muni almost exclusive use of a lane westbound (there are left turns allowed at 4th and 10th which would have to be accommodated by a left turn pocket and weaving across the bus lane to reach the pocket, unless these turns were eliminated. Weaving movements by Muni to reach the curb for passenger access would be eliminated by use of passenger islands in the street.



MISSION STREET – EASTBOUND TRAFFIC (DUBOCE TO EMBARCADERO) DIVERSION

SCALE: 1¼" = 2000 FT.

1. FOLSOM – COMPLETE ONE-WAY FROM DUBOCE OR 14TH (14TH IS ONE-WAY SOUTHBOUND)
2. HOWARD – CONTINUE ONE-WAY TO 12TH
3. BETTER SIGNING A) TO FREEWAY B) EASTBOUND THROUGH TRAFFIC USE FOLSOM
4. DIVERSION OF EASTBOUND TRAFFIC – FOR DETAIL SEE SKETCH 5B
5. NO CHANGE AT SOUTH VAN NESS

TRANSIT PREFERENTIAL STREETS

5A

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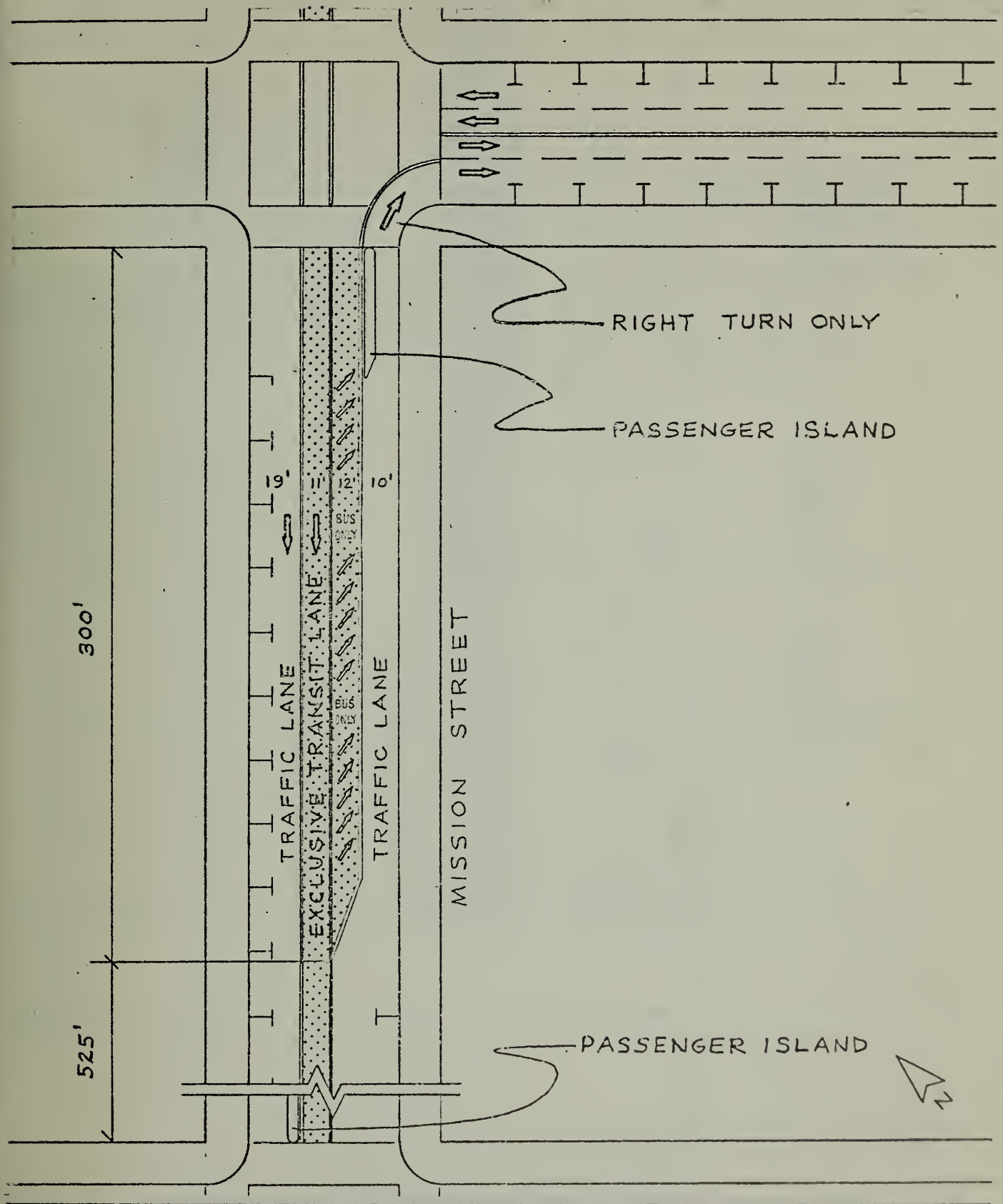

MISSION STREET – TYPICAL OF DIVERSION OF ALL EASTBOUND TRAFFIC AT 11TH, 5TH & 2ND STREETS
(DUBOCE TO EMBARCADERO)

NOT TO SCALE

• MUNI, TAXIS & JITNEYS USE BUS-ONLY LANE EASTBOUND

TRANSIT PREFERENTIAL STREETS 5B

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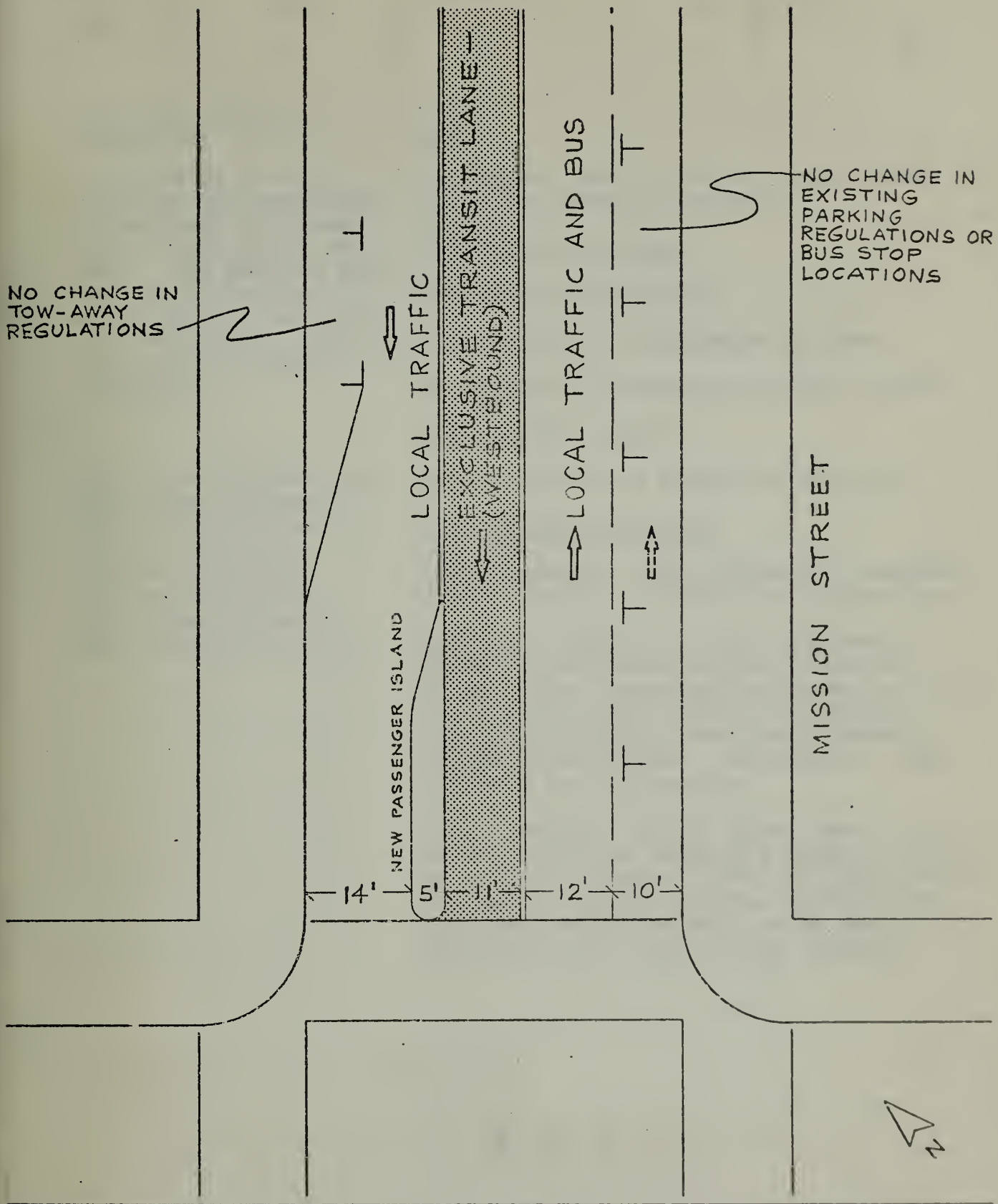

MISSION STREET – TYPICAL OF WESTBOUND EXCLUSIVE TRANSIT LANE FROM BEALE TO 11TH STREETS

(DUBOCE TO EMBARCADERO)

NOT TO SCALE

TRANSIT PREFERENTIAL STREETS

5C

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Proposal 2 (cont.)

of curbside parking opposite the passenger island and at corners where right turns are made. The parking and loading situation would remain the same, with one moving lane of traffic in each direction.

Note: In conjunction with these proposals, actions should be taken to protect Mission district residential areas near these streets from through traffic.

Cons

Passengers would have to cross street to reach loading platforms.

Costs Would Involve:

Striping of bus lanes.

Construction of passenger islands.

Restriping of remaining traffic lanes.

Appropriate signing.

Cost would be in excess of $10,000.

Departmental Opinions

City Planning: This proposal, combined with Proposal 1, should be implemented.

Municipal Railway: This lane could function as almost entirely exclusive in the most congested direction for the p.m. peak. Would more effectively identify Mission Street as a Transit Preferential Street. Proposals 1 and 2 should be implemented.

Public Works: It is agreed that there is a need to de-emphasize Mission Street as an auto street. Combining this with Proposal 1 would increase circulation problems and hence more study would be necessary for a definitive solution.

MISSION STREET--
16TH TO 24TH STREETS

Muni Lines: Same as rest of Mission, with the addition of #86-Shoppers' Shuttle which adds 21 more trips.

Existing Conflicts and Problems

- Heavy commercial loading between 16th and 24th Streets, conflicting with heavy vehicular traffic and transit. There is frequent double parking of commercial vehicles for unloading, and use of bus stops for additional commercial unloading space. This is a major shopping area for the Mission district.

- Narrow street width (52.5 feet).

Possible Solutions

Proposal 1

Widen sidewalk at corner to provide bus waiting and loading platform, moving the stops to the near side of the intersection (see Sketch 6A). This scheme needs only 30-40 feet of curb space, and the remainder of the space which used to be in the bus zone would be turned over to commercial loading purposes. This would vary from 45 to 70 feet depending upon the length of the existing bus zone.

Pros

Would eliminate need for buses to weave into and out of bus zones, making an easier flow for the buses.

Self-enforceable, in that no one would be able to park in the bus zone.

Provides additional commercial loading zones in an area that has heavy loading during the day.

Would provide space for street trees and Muni benches, and insures that passengers would be able to get on and off the bus directly from the sidewalk.

Costs Would Involve:

Construction of curb extensions.

Provision of trees and street furniture (optional).

Signing.

Removing pavement marking for existing bus zones.

Departmental Opinions

Public Works, City Planning and Municipal Railway: This proposal should be implemented. It is proposed that a trial be made on Polk Street of this proposal, and then extended to Mission if it works well.

LOCATOR MAP – TRANSIT PREFERENTIAL STREET PROPOSAL FOR MISSION STREET (16TH TO 24TH STREETS)

SCALE: 3/4" = 2400 FT.

TRANSIT PREFERENTIAL STREETS 6

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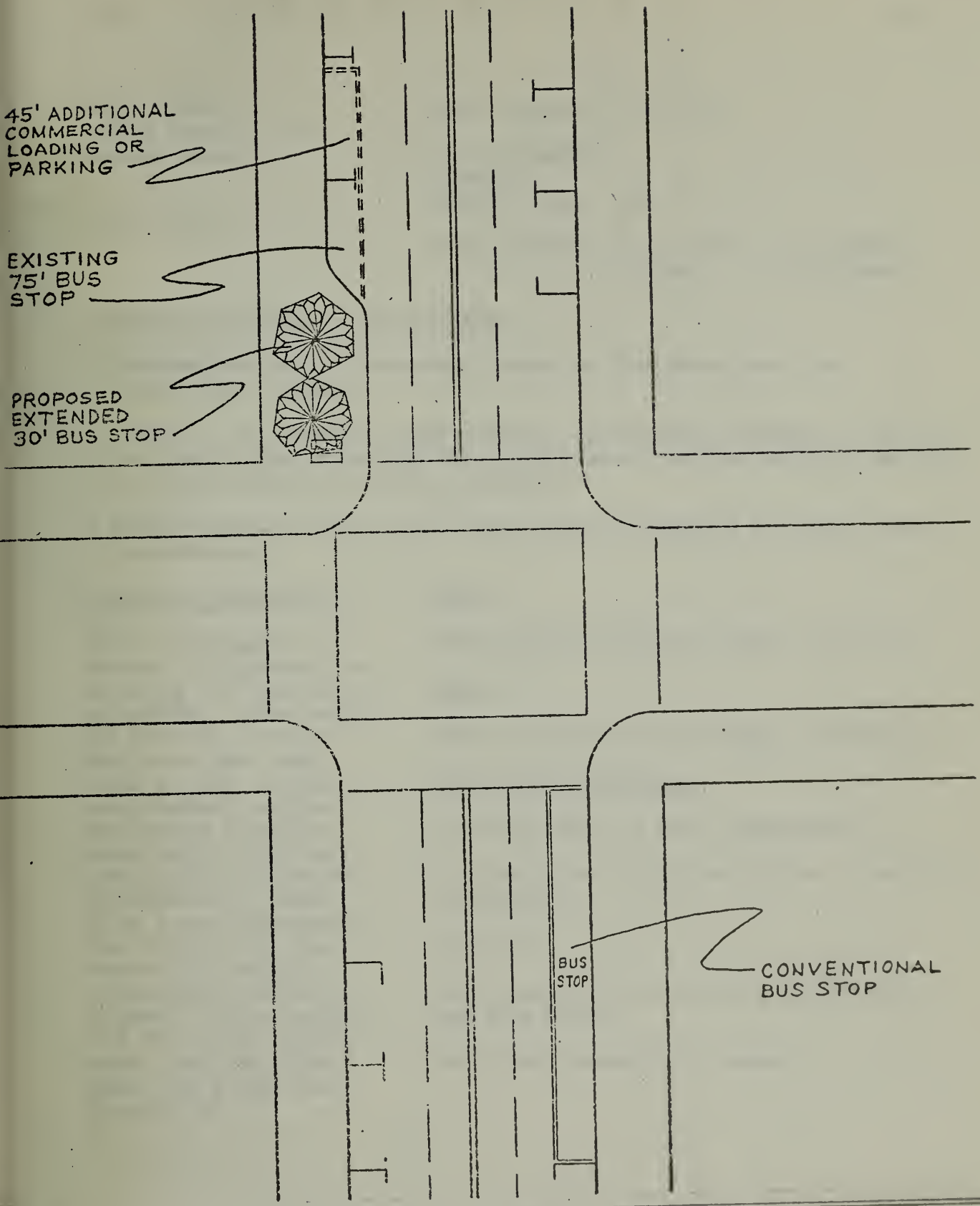
45' ADDITIONAL COMMERCIAL LOADING OR PARKING
EXISTING 75' BUS STOP
PROPOSED EXTENDED 30' BUS STOP
BUS STOP
CONVENTIONAL BUS STOP

MISSION STREET (16TH TO 24TH STREETS) — TYPICAL OF WIDENED SIDEWALK FOR BUS STOP

NOT TO SCALE

- BENCHES SHOULD BE PROVIDED AT BUS STOPS
- TYPICAL FOR POLK STREET SOUTH BOUND ONLY (SEE SKETCH 7A)

TRANSIT PREFERENTIAL STREETS 6A

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POLK STREET
(from Pacific to
Golden Gate)

Muni Lines: #19-Polk

No. of daily transit round-trips: 139

Bus headway: P.M. peak - 5 minutes
Midday - 8 minutes

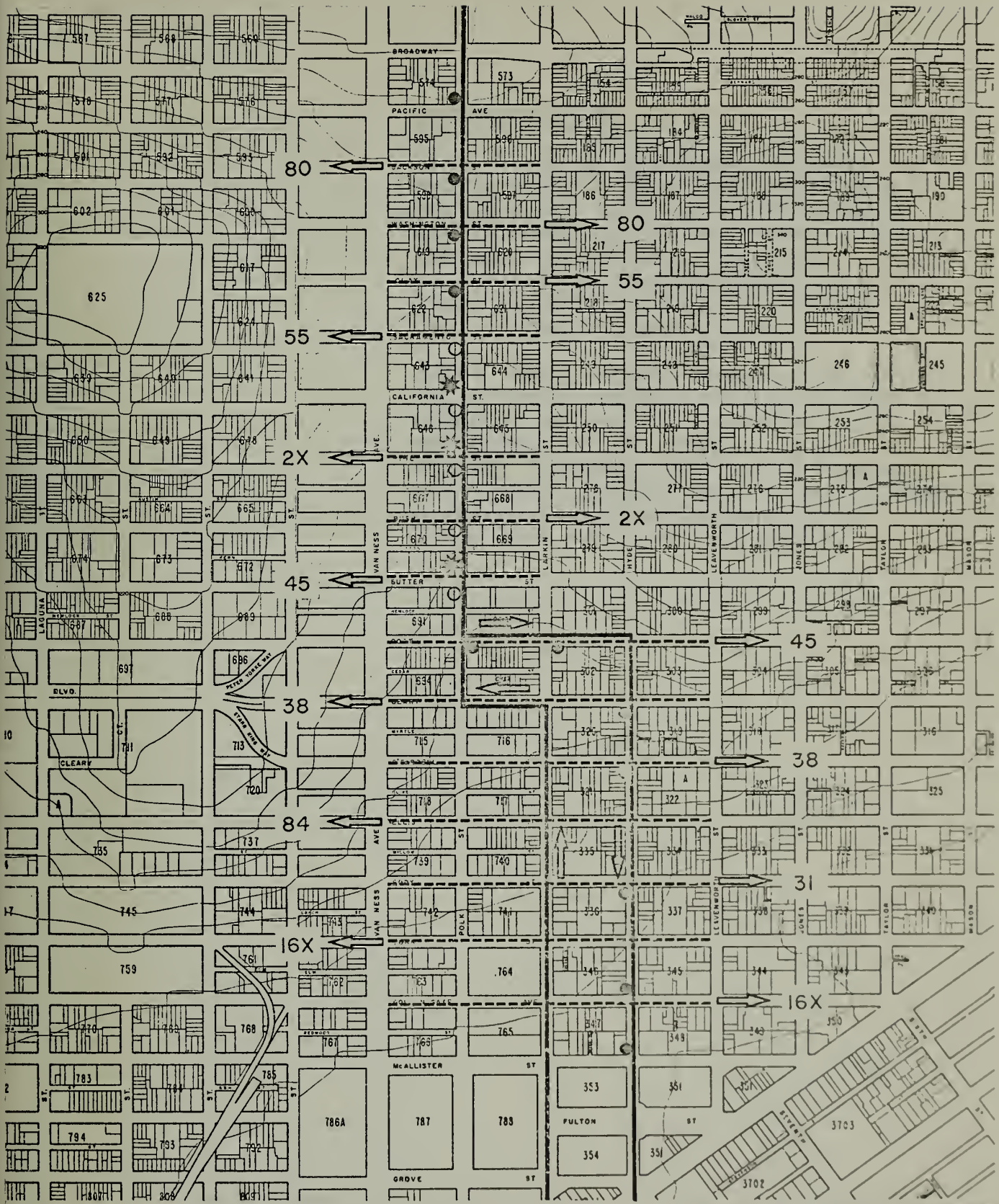
Existing Conflicts and Problems

- Congestion due to customer usage of shopping area and commercial loading.

- Conflict in street usage between commercial loading, transit and other vehicular traffic, with much double parking and use of bus loading zones for parking.

- Narrow street width, with one lane northbound and two lanes southbound.

Possible Solutions	Pros
Widen sidewalks at corner to provide bus waiting and loading platform. This could be done on a trial basis on the west side of the street, southbound, at the following corners: near-side California (replacing far-side California), near-side Pine (replacing far-side Pine) and near-side Sutter (replacing far-side Sutter); eliminating the far-side Sacramento and far-side Bush bus stops (see Sketch 7A).	Same as for Mission Street proposal.
	Cons
	Same as for Mission Street proposal.
	Costs Would Involve
	Construction of curb extensions.
	Provision of trees and street furniture (optional).
	Signing.
	Removing street painting designating old bus stops.
	Painting commercial zones.



POLK STREET - PROPOSED LOCATIONS - WIDENED SIDEWALKS FOR BUS STOPS

SCALE: 1/2" = 400 FT.

NO. 19 POLK

○ EXISTING BUS STOPS TO REMAIN

✲ PROPOSED BUS STOPS - NEARSIDE OF INTERSECTION - SOUTHBOUND (SEE SKETCH 6A FOR TYPICAL DETAIL)

○ MOVED OR ELIMINATED BUS STOPS

TRANSIT PREFERENTIAL STREETS

7A

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Departmental Opinions

City Planning, Municipal Railway, and Public Works: Should be tried on a 90-day trial basis after Christmas, with a study before and after of Muni operation and traffic patterns. Should be implemented permanently if trial proves to solve conflict problems and improve Muni's travel time.

NOTE: Public Works feels trial should employ very temporary measures such as sandbags to mark extended bus stops. Municipal Railway prefers wooden or asphalt platforms to closely resemble the actual extended curb in order that passengers and merchants will be afforded a realistic situation.

FILLMORE
(from Clay to Duboce)

Muni Lines: #22-Fillmore
(#3-Jackson also uses a portion of this street from Jackson to Sutter.)

No. of daily transit round-trips: 265 (for #22)

Bus headway: P.M. peak - 2 minutes, 18 seconds
Midday - 2 minutes, 24 seconds

Existing Conflicts and Problems

- Two-lane street serving commercial area, and also acting as an important cross-town artery for both transit and other vehicular traffic.

- Delays for transit at Fell and Oak Street intersections because of left turning movements and long green signal for Fell and Oak.

Possible Solutions

Proposal 1

Adjust timing of traffic signals at Oak, Fell and California Streets to provide more "green time" for Fillmore.

Proposal 2

Change bus stop configuration on Fillmore, at Oak and Fell Streets, to allow buses to optimize loading time by loading while waiting for a signal, and then being able to pass two signals before stopping again. The configuration of near-side Fell and far-side Oak southbound, and

Proposal 2 (cont.)

near-side Oak, far-side Fell northbound would permit this situation. Left-hand turn pockets at these intersections should be considered to prevent stacking of vehicles and blocking of the intersection. An alternative to the left-turn bays would be to prohibit left turns at Oak and Fell from Fillmore).

Proposal 3

Encourage use of Webster rather than Fillmore as a through north-south street by routing northbound traffic right onto Grove and thence to Webster.

Pros

Would give transit a higher priority in use of the transit preferential street.

Would help to relieve congestion on Fillmore by utilizing Webster (which has greater capacity) as a north-south artery.

Cons

Removal of a small number of on-street parking spaces to provide left-hand-turn bays.

Costs Would Involve

Painting of new Muni bus stops and removing painting of old bus stops.

Painting of left-hand-turn bays.

Appropriate signing.

Departmental Opinions

City Planning and Municipal Railway. These three proposals should be implemented. Provision of left-turn bays at Oak and Fell is a better solution for the stacking problem than prohibition of left turns, since these are major traffic arteries and access to them should be direct. Circuitous routing should be discouraged if possible.

Public Works:
Proposal 1. DPW will further investigate signal timing. However, it is questioned that any improvement will be significant.

Proposal 2. DPW agrees with bus stop relocations.

Proposal 3. DPW concurs in the desirability of encouraging auto use of Webster rather than Fillmore.

STOCKTON
(from Sacramento
to Columbus)

Muni Lines: #30-Stockton and
#30-Stockton Express

No. of daily
transit
round-trips: 332

Bus headway: P.M. peak - 1 minute,
12 seconds
Midday - 2 minutes,
6 seconds

Existing Conflicts and Problems

- Heavy commercial loading usage for the numerous businesses on this street.

- Heavy demand for short-term parking for customers of businesses on this street and other streets of Chinatown.

- Significant double parking by both commercial and private vehicles.

Possible Solutions

Proposal 1

Provide more commercial parking zones on the street in order to alleviate the double parking situation. This can range from a minimum of 44 more feet of commercial loading between Pacific and Clay to making several blocks completely commercial parking during the day.

Proposal 2

Move two bus stops in the northbound direction for the #30. It is proposed to move the far-side stops at Washington and at Clay Streets to the near side of these streets.

Proposal 2 (cont.)

Other actions that can be taken include: a) strict enforcement of double parking and no-parking regulations on both Stockton and the cross streets where commercial loading takes place, and b) the re-routing of the northbound Stockton Express to Kearny in order to help relieve congestion on Stockton. The express currently runs northbound on Kearny, Sutter, Stockton, Broadway. It is proposed to route it Kearny to Broadway, eliminating the Sutter/ Stockton stop. (The express does not stop on Stockton north of the tunnel.)

Pros

May help to alleviate double parking and allow transit to move somewhat more reliably.

Relocated bus stops will avoid conflict with commercial loading situations, and will meet several concerns mentioned by neighborhood groups.

Cons

Unless there is strict enforcement of double parking, there will be little benefit to transit.

More study of this street is needed to find a way to significantly aid transit movement.

Costs Involved

Painting of new bus zones.

Removal of old bus zones.

Costs Involved (cont.)

Painting of new commercial zones.

Departmental Opinions

All in agreement that these alternatives should be implemented.

Administrative or Non-Street Related Items

In addition to the proposals made to affect Muni operations directly by changes on the street or in Muni routes, there are other actions of a policy, administrative or non-operative nature that can be taken to improve transit speed and reliability. These include, but are not limited to, the following items.

1) Traffic Signal Surveillance

A seemingly minor timing error or malfunction in a traffic signal can have significant impact on the movement of all traffic on the streets, and can be particularly detrimental to transit speed and schedules. The Department of Public Works has recently done field checks on traffic signals, and out of 50 found 6--more than 10 percent--to be malfunctioning. A specific program of systematic surveillance of street signals, particularly on transit preferential streets, utilizing two persons full time, should be instituted by the Department of Public Works and the Department of Electricity to insure that traffic signal malfunctions are corrected and do not impede transit flow.

2) Signal Timing on Transit Preferential Streets

There are a number of instances where transit preferential streets are crossed by major traffic arteries whose volumes have warranted a green signal ratio that heavily favors the cross street. A short green time for the transit street, particularly at a heavily used intersection, can inhibit transit movement by causing all vehicles traveling along that street to wait through two or more signals to cross the intersection. It should be City policy to adjust the signal timing ratio on all transit preferential streets so that transit is not unduly detained in favor of the automobile.

It is proposed that the timing be adjusted now where Oak, Fell, and California cross Fillmore, and where Oak, Fell, Pine and Bush cross Divisadero. The existing timing now heavily favors the cross street.

3) Tow-Away Lanes--Start P.M. Peak Tow-Away at 3:30

On those streets in the city where the tow-away lane is now given over to transit use during the peak periods of the

day, surveillance has shown that as late as 4:30 in the evening peak there are still vehicles illegally parked and two trucks still in the process of towing such vehicles. Both situations prevent the lane from functioning as a transit-only lane. On those streets which are transit preferential streets and which have tow-away zones and where transit has no lane for its own use, the general congestion caused by this situation impedes transit and other vehicular traffic as well. It is suggested that tow-away zones in the evening peak start at 3:30 rather than 4:00 p.m., and that transit preferential streets be given priority in enforcement. This would allow tow-away lanes on these streets to be the first to be cleared, so that they can be cleared by 4:00 p.m., when Muni has its greatest numbers of vehicles in use, and the transit passenger loads are greatest. The question of enforcement of tow-away zones will be discussed further below.

4) Location of Mail Boxes, Scheduling of Mail Pick-ups and Newspaper Deliveries

The location of mail boxes in places convenient for access by the public are often in places that are convenient also for public access to transit, i.e., at corners where bus stops are situated. Mail box pick-ups scheduled in the evening peak hours, usually between 5 and 6 p.m., result in mail trucks stopping in bus zones and in bus lanes on transit preferential streets, blocking transit. The City should coordinate with the Post Office Department of new, replaced, or relocated mail boxes so that these conflicts can be minimized or eliminated. Also, to the extent possible, mail pick-ups and mail truck stops should be scheduled in such a way as to avoid the use of transit preferential streets during peak hours.

The delivery of newspapers to sidewalk vendors and to stores in the evening peak hours also causes a conflict problem for transit, since delivery trucks often use bus stops or tow-away zones for stopping. The City should coordinate with the newspaper companies in order to make them aware of this problem and find ways to alleviate the conflict.

5) Conditional Use Zoning Review for Auto-Oriented Uses on Transit Preferential Streets

It has been recognized, as mentioned earlier in this report, that the use of the automobile for commuter and intra-city trips causes an adverse impact on the environment and that many such trips should be discouraged. Permitting auto-oriented uses on streets that function as major transit arteries is contrary to the goal of eliminating conflicts between transit and other vehicular uses on the street. Auto-oriented uses are those that 1) generate automobile

trips specifically for the servicing of automobiles, such as gas stations or car washes; 2) generate automobile trips for people remaining in their cars while obtaining a service--such as drive-in banks; or 3) encourage or facilitate automobile use for certain shopping or business trips, such as parking lots or garages. Such auto-oriented uses on transit streets encourage more private vehicles on already congested streets and provide more sources for conflict.

The City Planning Code presently permits such uses as principal uses in some commercial and industrial zoning districts. In other districts, auto-oriented uses are permitted only as conditional uses, requiring approval by the City Planning Commission. This means that the Commission determines if a requested use should be permitted on the basis of whether the use is necessary or desirable and whether it will have detrimental effects upon the surrounding area. More importantly, if the Commission determines that the proposed use does meet these criteria, it is empowered to establish conditions under which that use will be approved.

Presently, the Code does not permit "drive-in" uses (serving customers waiting in parked motor vehicles--such as drive-in banks and restaurants) in C-1, C-3-0, C-3-R and C-3-G districts, but exempts automobile service stations and automobile washes from this prohibition. These restrictions do not apply to C-2, C-3-S, C-M, M-1, and M-2 districts, where nearly all auto-oriented uses, such as parking lots, garages (including those required by the Planning Code to fulfill a parking requirement) and gas stations, may be permitted. Even in those cases where a conditional use is required, auto-oriented uses are not specifically reviewed for their impact on the functioning of transit preferential streets.

It is suggested, therefore, that a study be made to determine what changes or additions to the Planning Code might be necessary to bring proposed auto-oriented uses, including those on Transit Preferential Streets, before the Planning Commission for conditional use review. This would allow a determination to be made as to the proposed project's impact on transit, and would allow conditions to be set which would make the use more compatible with the transit orientation of the street. This study should also determine if further review or restrictions should be made for permitted and required parking lots in order to minimize or eliminate conflict with transit.

The objective here is not to prohibit auto-oriented uses, but rather to establish a procedure by which conflict and congestion can be minimized or alleviated through design or other means where transit should receive preference in the use of the street.

6) Consolidation of Freight Deliveries and Restriction of Deliveries to Late Evening and Early Morning Hours

The Plan for Transportation contains a policy that calls for the encouragement of this practice. As noted, even if adequate off-street loading facilities or "yellow zones" could be provided, there would still be conflict between vehicles delivering goods and other vehicular--particularly transit--vehicles. The problem of conflicts for transit is not limited to just peak traffic hours--congestion is especially heavy in the downtown area at midday (from 10 to 2), precisely the time period that there is excess transit capacity and when transit ridership should be encouraged to remove more automobiles from the street. Deliveries at this time should be actively discouraged, and a program to find ways to confine deliveries to times more compatible with transit usage should be instituted.

7) Staggering of Business Hours to Relieve Intensity of Peak Hour Traffic and Transit Demand

The capacity of both the transit and the street systems are designed to handle the peak hour demand occurring between 7 and 9 a.m. and 4 and 6 p.m. Demand drops off sharply after both peaks, with the result of an excess of capacity which must be supported and maintained even if not used. If the beginning and ending hours of the work day could be extended over a range of times (such as 7 to 4, 7:30 to 4:30, 8 to 5, 8:30 to 5:30, 9 to 6), the demand would be less intense at any given hour, allowing the existing systems to handle greater numbers of trips with less crowding and more comfort and safety.

8) Public Actions on Transit Preferential Streets

Finally, it should be recognized that there are actions taken by public agencies and private individuals that individually appear to have no impact on the operation of transit, but collectively add up to minutes and hours of delay and frustration for transit users. It should be City policy that any public action being taken on a transit preferential street--from granting of a permit for construction, particularly those involving street disruption, to installation of a stop sign to permitting a parking garage--should receive extremely careful scrutiny and either be prohibited if possible or carefully regulated so that impedance to transit service is avoided or minimized.

Enforcement

Everyone--from the Muni rider to the Muni driver to the staffs of these three departments to the Police Director of Traffic--acknowledges that if the existing parking and moving traffic regulations were obeyed and strictly enforced, the speed and reliability of transit vehicles could be improved significantly. Adequate and strict enforcement is as important in establishing transit preferential streets and moving Muni as are street treatments and administrative actions.

The Problem

There are both parking and moving violations which affect transit movement. Parking violations affecting transit include double parking, illegal use of commercial parking zones, parking in bus stops, and parking in tow-away zones during peak hours. Moving violations affecting transit include blocking of intersections, abuse of the amber time of traffic signals, the use of tow-away zones during peak hours for waiting to pick up passengers (stopping is not allowed during these hours), and the use of existing peak-hour bus lanes for through traffic (buses and right-turning vehicles only are permitted to use these lanes). Another type of violation which acutely affects transit time is the abuse by contractors of restrictions on construction projects which disrupt the street. These restrictions are set by the Department of Public Works, the Municipal Railway and the Police Department in order to insure that transit and other vehicles are not impeded, particularly during peak traffic hours.

All of these violations cause delays for Muni (and for the other vehicles using the streets). Double parking, which blocks a lane of traffic, can cost a bus carrying 50 passengers during the peak hour 30 seconds to several minutes of delay, in addition to slowing down transit following it. For electric transit vehicles, the problem is compounded since their use of the overhead power line limits their flexibility and ability to use another lane to either pass the double-parked vehicle or another bus. A blocked intersection, or a series of blocked intersections, can mean 10 minutes for a bus to travel two blocks. The use of commercial loading zones by noncommercial vehicles leads to competition for noncommercial parking by service vehicles and to double parking. A vehicle parked in a bus zone forces the bus driver to stop in the street, and causes passengers

to board from the street, having to first negotiate around the vehicle in the bus stop and then step up an extra distance to the first step of the bus. This is particularly dangerous and difficult for senior citizens, children, and the disabled. A peak-hour violation of a tow-away zone makes a bus lane completely unusable, forces the buses into an automobile lane, and slows up not only 50 riders on each bus but also all the vehicles in the automobile lane.

Proposals

There are two general categories of possible solutions: 1) stronger enforcement of existing regulations; and 2) changes in existing regulations.

Regarding stronger enforcement of existing regulations, the following actions could make the regulations work better for Muni and other traffic:

1) Continuation of an active policy of priority attention by the Police Department to the enforcement of regulations on transit preferential streets.

2) Half-hour surveillance beats by parking controlpersons of commercial zones to insure that users do not exceed the time limit and to cite all illegal users of the zones. At this time, the number of parking controlpersons is sufficient only for one-hour beats.

3) Additional police officers (knowledgeable of all sections of the traffic code and of all projects on the street) assigned to the morning and evening peaks for enforcement of construction projects involving street disruption. There is now only one police officer assigned to each peak period to enforce all construction regulations.

4) Random and continuous surveillance of tow-away zones to prevent the situation which could happen where drivers park immediately after the traffic patrolperson tours the beat, regardless of the hour. There are now 24 traffic controlpersons assigned to the evening peak for all tow-away zones, and more may be necessary to provide the level of enforcement that will insure that transit moves on transit preferential streets.

5) Additional traffic controlpersons assigned to those intersections where clearance is essential to efficient and reliable transit movement. For instance, the conflicts at Kearny and Bush between transit, other vehicles and pedestrians may warrant full-time assignment of a traffic controlperson, and other intersections (such as First and Mission) which now have only p.m. peak assignments should have full day assignments.

Regarding changes to existing regulations, the following actions should be considered:

1) A $20 minimum fine for double parking, illegal parking in a commercial zone, and parking in a bus stop. Currently, the minimum fine is $10 for double parking, illegal parking in a commercial zone or parking in a bus stop. Although municipal court judges now have the discretion to charge a maximum of $50 for these violations, any citations mailed in require only a $10 payment, and any ticket taken to court can be settled with only a $10 fine. The prospect of a $20 tag could help to deter parking violators and keep one-time violators from repeating.

2) Institution of 3:30 to 6:00 p.m. rather than 4:00 to 6:00 p.m. effective hours on tow-away zones, with priority given to the enforcement of these hours on transit preferential streets. As discussed previously, this action could help to insure that these streets are the first to be cleared and are cleared by 4:00 p.m. when the heaviest transit (and vehicular) demand starts.

Effect on Enforcement Requirements of Proposals contained in this report

For the proposals given in this report involving restricted use of portions of the street for transit (such as the 18-foot bus lanes on Post, Sutter, and Third), additional enforcement may be necessary at intersections where congestion may occur due to restricted capacity, and to insure that private automobiles stay out of transit lanes unless entering a parking or turn lane. There are some twelve intersections to which traffic controlpersons are not now assigned which may be affected by installation of exclusive bus lanes. In addition, there are two intersections (First Street at Howard and at Mission) which have controlpersons assigned only in the evening peak, and may require all day assignments. Relief persons (at a ratio of one to every three intersections) would also be necessary. For surveillance of the moving traffic on transit preferential streets, more solo motorcyclepersons may be necessary. It is extremely important that measures--such as exclusive bus lanes--that require enforcement be accompanied by the provision of adequate personnel to provide this enforcement. The Police Department should request in their budget the additional personnel needed for any proposals approved by the Board of Supervisors, and appropriations should be made to fund such requests.

Conclusion

It should be noted that each of the proposals contained in this report relating to street treatments, administrative actions, and enforcement can be considered and implemented independently of each other. Each proposal by itself, if implemented, can have the effect of improving transit time and reliability, if not on the entire system and for the entire ridership, then at least on one portion.

The next step in the process of establishing transit preferential streets in the city is for the Board of Supervisors to consider and act upon these proposals after holding public hearings on the report. A continuing effort should be made by the three departments to develop transit preferential street proposals after the Board defines the City's policies on the various proposals made here.